

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-12. (Canceled)

13. (Currently Amended) A method of delivering fluid to multiple patients, comprising:

(a) providing a fluid delivery system comprising a reusable fluid path and a plurality of per-patient disposable fluid paths, the reusable fluid path including

(i) a first fluid source;

(ii) a second fluid source;

(iii) a device helical vane mixer adapted to mix fluids from the first and second fluid sources, the plurality of per-patient disposable fluid paths each including a first end connectable to a patient of the multiple patients and a second end connectable to the reusable fluid path;

(b) connecting the second end of a first per-patient disposable fluid path of the plurality of per-patient disposable fluid paths to the reusable fluid path and the first end of the first per-patient disposable fluid path to a first patient of the multiple patients to define a fluid path between the first and second fluid sources and the first patient;

(c) mixing the fluids from the first and second fluid sources to create a first mixture with a predetermined content for the first patient;

(d) delivering the first mixture to the first patient through the first per-patient disposable fluid path;

(e) disconnecting the first per-patient disposable fluid path from the reusable fluid path and the first patient;

(f) connecting a second per-patient disposable fluid path to the reusable portion fluid path and a second patient of the multiple patients;

(g) mixing the fluids from the first and second fluid sources to create a second mixture with a predetermined content for the second patient; and

(h) delivering the second mixture to the second patient through the second per-patient disposable fluid path.

14. (Previously Presented) The method of claim 13, wherein the reusable fluid path further comprises at least one metering device disposed between the first and the second fluid sources.

15. (Previously Presented) The method of claim 14, further comprising a control device in communication with the metering device.

16. (Previously Presented) The method of claim 13, wherein the reusable fluid path further comprises a fluid assurance device.

17. (Previously Presented) The method of claim 13, wherein the first fluid source comprises a contrast source.

18. (Previously Presented) The method of claim 13, wherein the second fluid source comprises a diluent source.

19-64. (Canceled)

65. (Previously Presented) The method of claim 14, wherein the at least one metering device comprises a peristaltic pump.

66. (Canceled)

67. (Previously Presented) The method of claim 13, wherein the delivery of at least one of either the first or second mixture comprises the use of a rotary valve switch to select the delivery of fluids to a patient of the multiple patients.

68. (Canceled)

69. (Previously Presented) The method of claim 13, wherein the reusable fluid path further comprises a pressurizing pump.

70. (Previously Presented) The method of claim 15, further comprising a user interface connected to the control device.

71. (Previously Presented) The method of claim 15, further comprising an electronic interface connecting the control device to a hospital information system.

72. (Previously Presented) A method of delivering fluid to multiple patients, comprising:

(a) providing a fluid delivery system comprising a reusable fluid path and a plurality of per-patient disposable fluid paths, the reusable fluid path including

- (i) a first fluid source;
- (ii) a second fluid source; and

(iii) a Y element adapted to mix fluids from the first and second fluid sources, the plurality of per-patient disposable fluid paths each including a first end connectable to a patient of the multiple patients and a second end connectable to the reusable fluid path;

(b) connecting the second end of a first per-patient disposable fluid path of the plurality of per-patient disposable fluid paths to the reusable fluid path and the first end of the

U.S. Patent Application Serial No. 09/939,656

Inventor(s): UBER III et al.

Client Reference No.: IN/98-013.FWC.C.C.

Atty. Dkt. No.: 45210 - 265228

per-patient disposable fluid path to a first patient of the multiple patients to define a fluid path between the first and second fluid sources and the first patient;

(c) mixing the fluids from the first and second fluid sources to create a first mixture with a predetermined content for the first patient;

(d) delivering the first mixture to the first patient through the first per-patient disposable fluid path;

(e) disconnecting the first per-patient disposable fluid path from the reusable fluid path and the first patient;

(f) connecting a second per-patient disposable fluid path to the reusable fluid path and a second patient of the multiple patients;

(g) mixing the fluids from the first and second fluid sources to create a second mixture with a predetermined content for the second patient; and

(h) delivering the second mixture to the second patient through the second per-patient disposable fluid path.

73. (Previously Presented) The method of claim 72, wherein the reusable fluid path further comprises at least one metering device disposed between the first and second fluid sources and the Y element.

74. (Previously Presented) The method of claim 73, further comprising a control device in communication with the metering device.

75. (Previously Presented) The method of claim 72, wherein the reusable fluid path further comprises a fluid assurance device.

76. (Previously Presented) The method of claim 72, wherein the first fluid source comprises a contrast source.

77. (Previously Presented) The method of claim 72, wherein the second fluid source comprises a diluent source.

78. (Previously Presented) The method of claim 73, wherein the at least one metering device comprises a peristaltic pump.

79. (Canceled)

80. (Previously Presented) The method of claim 72, wherein the reusable fluid path further comprises a pressurizing pump.

81. (Previously Presented) The method of claim 74, further comprising a user interface connected to the control device.

82. (Previously Presented) A method of delivering fluid to multiple patients, comprising:

(a) providing a fluid delivery system comprising a reusable fluid path and a plurality of per-patient disposable fluid paths, the reusable fluid path including

(i) a first fluid source;

(ii) a second fluid source; and

(iii) a static mixer configured to mix the fluids from the first and second fluid sources to create a mixed fluid, the plurality of per-patient disposable fluid paths each including a first end connectable to a patient of the multiple patients and a second end connectable to the reusable fluid path;

(b) connecting the second end of a first per-patient disposable fluid path of the plurality of per-patient disposable fluid paths to the reusable fluid path and the first end of the first per-patient disposable fluid path to a first patient of the multiple patients to define a fluid path between the first and second fluid sources and the first patient;

U.S. Patent Application Serial No. 09/939,656

Inventor(s): UBER III et al.

Client Reference No.: IN/98-013.FWC.C.C.

Atty. Dkt. No.: 45210 - 265228

(c) mixing the fluids from the first and second fluid sources to create a first mixture with a predetermined content for the first patient;

(d) delivering the first mixture to the first patient through the first per-patient disposable fluid path;

(e) disconnecting the first per-patient disposable fluid path from the reusable fluid path and the first patient;

(f) connecting a second per-patient disposable fluid path to the reusable fluid path and a second patient of the multiple patients;

(g) mixing the fluids from the first and second fluid sources to create a second mixture with a predetermined content for the second patient; and

(h) delivering the second mixture to the second patient through the second per-patient disposable fluid path.

83. (Previously Presented) The method of claim 82, wherein the reusable fluid path further comprises at least one metering device.

84. (Previously Presented) The method of claim 83, further comprising a control device in communication with the metering device.

85. (Previously Presented) The method of claim 82, wherein the reusable fluid path further comprises a fluid assurance device.

86. (Previously Presented) The method of claim 82, wherein the first fluid source comprises a contrast source.

87. (Previously Presented) The method of claim 82, wherein the second fluid source comprises a diluent source.

U.S. Patent Application Serial No. 09/939,656

Inventor(s): UBER III et al.

Client Reference No.: IN/98-013.FWC.C.C.

Atty. Dkt. No.: 45210 - 265228

88. (Previously Presented) The method of claim 83, wherein the at least one metering device comprises a peristaltic pump.

89. (Canceled)

90. (Previously Presented) The method of claim 82, wherein the reusable fluid path further comprises a pressurizing pump.

91. (Previously Presented) The method of claim 84, further comprising a user interface connected to the control device.

92-94. (Canceled)